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PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Group

Art Unit: 1743

Attorney

Docket No.: NST0005

Applicant: Timothy J. Johnson et al.

Invention: SURFACE CHARGE MODIFICATION
WITHIN PREFORMED POLYMER
MICROCHANNELS WITH MULTIPLE
APPLICATIONS INCLUDING MODULATING
ELECTROOSMOTIC FLOW AND CREATING
MICROARRAYS

Serial No: 09/905,566

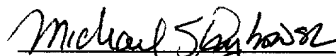
Filed: July 13, 2001

Examiner: Unknown

Certificate Under 37 CFR 1.8(a)

I hereby certify that this correspondence is being
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class mail in an envelope addressed to: Assistant
Commissioner of Patents, Washington, D C. 20231

on September 13, 2001


Michael S Gzybowski

PRELIMINARY AMENDMENT

Box Missing Parts
Assistant Commissioner for Patents
Washington, DC 20231

Sir:

In response to the Notice to File Corrected Application Papers mailed August 27, 2001
and prior to the examination of the above-identified application, please amend the application
as follows:

IN THE SPECIFICATION

Please replace the specification with the Substitute Specification attached hereto as
requested in the Notice. The Substitute Specification includes those hand-written changes noted
on the specification as filed. No other changes have been made to the specification.

IN THE CLAIMS

Please amend Claim 1 as follows:

1. (Amended) A method of modifying fluid flow in a channel formed in a substrate which comprises:
exposing a portion of the channel to light at a fluence and wavelength(s) which are sufficient to alter the surface charge at the exposed portion of the channel.

Please amend Claim 4 as follows:

4. (Amended) A method of modifying fluid flow in a channel formed in a substrate according to claim 1, wherein the portion of the channel which is exposed to light comprises at least one of a wall of the channel, a top of the channel, a bottom of the channel, and portions thereof.

Please amend Claim 11 as follows:

11. (Amended) A method of immobilizing a chemical species in a channel formed in a substrate which comprises:
exposing a portion of the channel to light at a fluence and wavelength(s) which are sufficient to alter the surface charge at the exposed portion of the channel; and
applying a chemical species to the exposed portion of the channel.

Please amend Claim 14 as follows:

14. (Amended) A method of immobilizing a chemical species in a channel formed in a substrate according to claim 11, wherein the portion of the channel that is exposed to the light comprises at least one of a wall of the channel, a top of the channel, a bottom of the channel, and portions thereof.

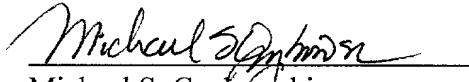
• • • R E M A R K S • • •

By the present Preliminary Amendment, the specification and claims have been revised to comply with the Notice to File Corrected Application Papers mailed August 27, 2001. Care has been taken so as to avoid the addition of new matter in the specification and claims.

Entry of the present Preliminary Amendment prior to the examination of the application is respectfully requested.

In the event applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, applicants hereby petition therefor and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Respectfully submitted,


Michael S. Gzybowski
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MSG/mln/197814

VERSION WITH MARKINGS TO SHOW CHANGES MADE

Changes Made to Claims

Claim 1 has been amended as follows:

1. (Amended) A method of modifying fluid flow in a channel formed in a substrate which comprises:

exposing a portion of the channel to light at a fluence and wavelength(s) which [is] are sufficient to [change a] alter the surface charge at the exposed portion of the channel.

Claim 2 remains unchanged.

Claim 3 remains unchanged.

Claim 4 has been amended as follows:

4. (Amended) A method of modifying fluid flow in a channel formed in a substrate according to claim 1, wherein the portion of the channel which is exposed to light comprises at least one of a wall of the channel, a top of the channel, a bottom of the channel, and portions thereof.

Claim 5 remains unchanged.

Claim 6 remains unchanged.

Claim 7 remains unchanged.

Claim 8 remains unchanged.

Claim 9 remains unchanged.

Claim 10 remains unchanged.

Claim 11 has been amended as follows:

11. (Amended) A method of immobilizing a chemical species in a channel formed in a substrate which comprises:

exposing a portion of the channel to light at a fluence and savelength(s) which [is] are sufficient to [change a] alter the surface charge at the exposed portion of the channel; and
applying a chemical species to the exposed portion of the channel.

Claim 12 remains unchanged.

Claim 13 remains unchanged.

Claim 14 has been amended as follows:

14. (Amended) A method of immobilizing a chemical species in a channel formed in a substrate according to claim 11, wherein the portion of the channel that is exposed to the light comprises at least one of a wall of the channel, a top of the channel, a bottom of the channel, and portions thereof.

Claim 15 remains unchanged.

Claim 16 remains unchanged.

Claim 17 remains unchanged.

Claim 18 remains unchanged.

Claim 19 remains unchanged.

Claim 20 remains unchanged.

Claim 21 remains unchanged.

Claim 22 remains unchanged.

Claim 23 remains unchanged.

Claim 24 remains unchanged.